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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,958	05/04/2005	Khaledul M Islam	PAT 58223W-2	8096

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EXAMINER

LY, NGHI H

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,958	<b>Applicant(s)</b> ISLAM ET AL.	
	<b>Examiner</b> Nghi H. Ly	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 27-59 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35-56 is/are allowed.
- 6) ☒ Claim(s) 27-30 and 57-59 is/are rejected.
- 7) ☒ Claim(s) 31-34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 57-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 57-59, it is not clear to the examiner which claim that claims 57-59 depend on, since claims 57-59 can not depend on cancelled claim 23.

### ***Specification***

4. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi et al (US 6,411,808) in view of Aoki et al (US 7,027,831).

Regarding claim 27, Adachi teaches a method for switching a mobile device to a deep sleep mode (see Abstract and column 2, lines 14-18, see "standby state") comprising:

- a) monitoring a system channel (see column 2, lines 14-33, see "detecting"),
- b) counting a number of times the system channel is lost within a timeout period (see column 2, lines 14-33, see "count" and "out-of-synchronism" and "time period").

Adachi does not specifically disclose:

- c) entering the deep sleep mode when the system channel count equals a predetermined number.

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Aoki teaches c) entering the deep sleep mode when the system channel count equals a predetermined number (see column 13, lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Aoki into the system of Adachi in order to provide a mobile radio communication apparatus the performs a control process to seize a base station (see Aoki, column 1, lines 17-19).

Regarding claim 28, Adashi teaches the step of monitoring includes monitoring one of a pilot channel and a paging channel of the system channel (see column 5, lines 24-39 and column 6, lines 35-45).

Regarding claim 29, Adashi teaches the step of monitoring includes resetting a channel lost counter and a channel lost start time value (see column 2, lines 14-33, see "count" and "out-of-synchronism" and "time period").

Regarding claim 30, Adashi teaches the step of counting includes incrementing the channel lost counter each time the system channel is lost (see column 1, line 62 to column 2, line 33, see "count" and "out-of-synchronism" and "time period").

### ***Allowable Subject Matter***

8. Claims 31-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 31, the combination of Adachi et al (US 6,411,808) and Aoki et al (US 7,027,831) teaches claim 30. The combination of Adachi et al (US 6,411,808)

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and Aoki et al (US 7,027,831) fails to teach the step of incrementing includes setting the channel lost start time value to a first current Global Positioning System time when the channel lost counter value is one.

9. Claims 35-56 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 35, Adachi et al (US 6,411,808) teaches a method for saving battery power in a mobile device switched to a deep sleep mode (see Abstract and column 2, lines 14-18, see "standby state"), the method comprising:

- a) monitoring a system channel (see column 2, lines 14-33, see "detecting"),
- b) counting a number of times the system channel is lost within a timeout period (see column 2, lines 14-33, see "count" and "out-of-synchronism" and "time period").

Adachi fails to teach:

- c) entering the deep sleep mode when the system channel count equals a predetermined number,
- d) waking up from the deep sleep mode after a time interval to sample an RF strength of a system,
- e) comparing the sampled RF condition strength to a predetermined level,
- f) increasing the time interval if the sampled RF condition strength is less than the predetermined level, and,
- g) re-entering the deep sleep mode.

Regarding claim 56, Adachi et al (US 6,411,808) teaches a mobile device battery power saving system (see Abstract and column 2, lines 14-18, see "standby state"), comprising:

- a) a channel processor for providing a flag signal indicating loss of a system channel (see column 2, lines 14-33, see "detecting"),
- b) a deep sleep controller for receiving the flag signal, counting a number of times the system channel is lost within a timeout period (see column 2, lines 14-33, see "count" and "out-of-synchronism" and "time period").

Adachi fails to teach providing a system lost exit flag for entering a deep sleep mode when the system channel count equals a predetermined number,

- c) a variable setting controller for setting deep sleep mode variables in response to the system lost exit flag and for adjusting the deep sleep mode variables in response to control signals, and,
- d) a low power controller for iteratively sampling an RF condition parameter at a time interval defined by the deep sleep mode variables and for providing the control signals to the variable setting controller when the RF condition fails to improve.

Dependent claims 36-55 are allowable for the same reason.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- a. Baker (US 6,738,640) teaches radio communication system.
- b. Miyoshi (US 6,889,041) teaches mobile communication system.
- c. Harada (US 6,934,516) teaches radio network system.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911.

The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

  
04/13/06



CHARLES APPIAH  
PRIMARY EXAMINER